

# Ferries Division

## Liquefied Natural Gas

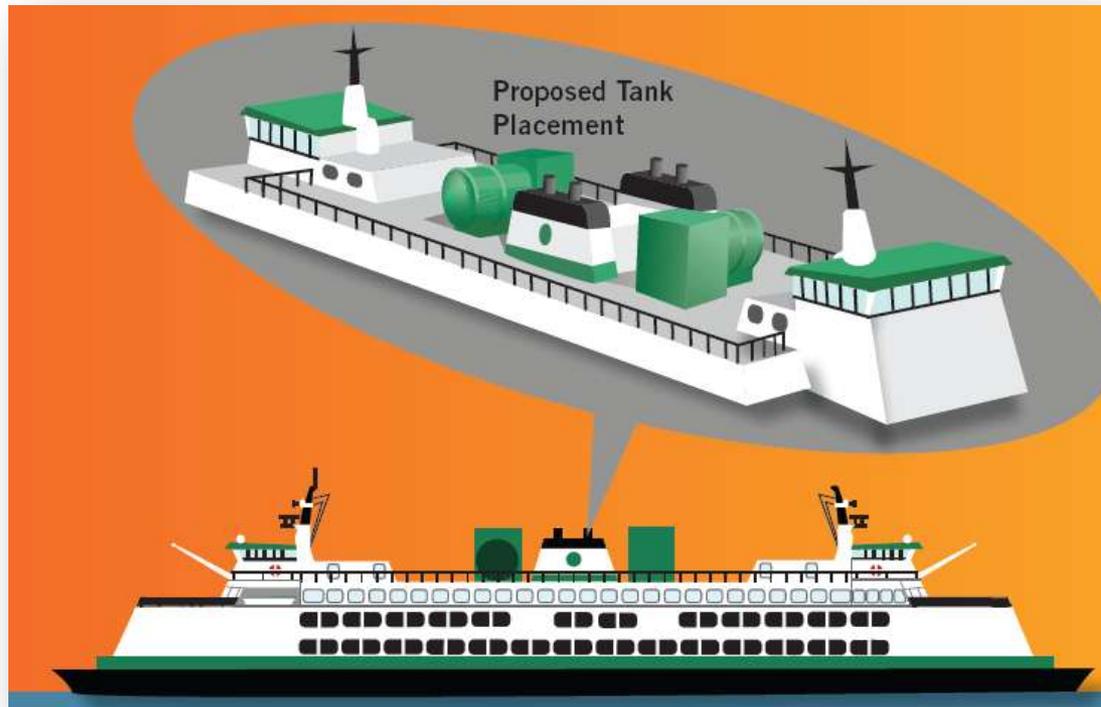


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Washington State Ferries

**Liquefied Natural Gas**  
House Transportation Committee  
Nov. 21, 2013

# Proposal

WSF proposes retrofitting 6 Issaquah Class vessels to burn LNG fuel



# Why is WSF Considering LNG?

- WSF burns more than 17 million gallons of fuel annually
- Fuel represents 23 percent of FY13-15 operating budget (compared to 11 percent in FY00-01)
- WSF is the largest single source of carbon emissions in Washington state government

# Why is WSF Considering LNG?

- Moving from diesel to LNG could save 40-50% at today's pricing
- Significant emissions reductions, including:
  - 89 percent reduction in particulate matter
  - 61 percent reduction in nitrous oxide
  - 28 percent reduction in carbon dioxide
  - 59 percent reduction in sulfur dioxide

# Safety and Security Assessments (WSA) Timeline

WSF has conducted over 3 years of analysis, evaluation and detailed studies on LNG

- March 2010: Glosten Associates report, LNG Use of WSF
- Feb. 2011: WSF decision to explore two options for use of LNG
- Sept. 2011: WSF submits conceptual design proposal to U.S. Coast Guard for review
- Dec. 2011: U.S. Coast Guard issues letter of approval for the conceptual design
- Jan. 2012: JTC commissions feasibility study from the Cedar River Group
- March 2012: Legislature appropriates funds for safety and security planning processes
- Nov. 18, 2013: WSF submits the safety and security plan, Waterways Suitability Assessment (WSA), to U.S. Coast Guard for approval
- Nov. 20, 2013: WSF issues press release and publishes WSA online for public review

# Findings of Safety and Security Assessment

- Placement of the LNG tanks on the top deck of the ferries is an inherently safe. Probability of such a collision would be a 1 in 500 year event
- If a person stood at the location with the greatest risk, on the busiest route, their maximum potential individual risk is at the level of 1 in 1,000,000 per year (0.000001 per year)
- Societal risk from LNG fueled passenger ferry deemed as Low as Reasonably Practicable
- Security assessment evaluated eight threat scenarios. These threats are included as separate appendix designated as Sensitive Security Information and is only releasable by the U.S. Coast Guard.

# Request for Proposal Process for Design/Build LNG Propulsion

- Sept.- Oct. 2012: Project advertisement; RFP package issued; and pre-proposal conference
- March 2013: Proposals received from Rolls-Royce Marine North America, Inc. and Wartsila North America, Inc.
- May 2013: WSF issues proposal deficiency letters to proposers, to enable correction of proposals
- June 2013: Removal of Wartsila proposal from further consideration due to Wartsila's inability to correct proposal deficiencies
- July 2013: Rolls-Royce Marine submits first proposal corrections
- Dec. 2013: Final proposal corrections due from Rolls-Royce Marine

# Contact

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